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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,942	01/25/2001	Robert O'Brien	3005-58065	8210

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EXAMINER

POLITZER, JAY L

ART UNIT PAPER NUMBER

2856

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/770,942

Applicant(s)

O'Brien

Examiner

Jay Politzer

Art Unit

2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 25, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-8, 10-14, 17, 18, 20-36, 47-53, 69-87, and 89-113 is/are pending in the application.
- 4a) Of the above, claim(s) 4-7, 17, 20, 24-27, 51, 53, 75, 85, 86, 93, and 95 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 10-14, 18, 21-23, 28-36, 47-50, 52, 69-74, 76-84, 87, 89-92, 94, & 96-113 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Serial Number: 09/770,942

Art Unit: 2856

Title: METHOD AND APPARATUS FOR CONCENTRATING SAMPLES FOR ANALYSIS

Filed: 1/25/01

Inventor(s): O'Brien

Attorney(s): Polley

DETAILED ACTION

REJECTIONS UNDER 35 U.S.C. § 112:

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-14, 34, 87 and 90-91 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For example:

Regarding Claims 13-14 and 87; what is an "internal standard", how is it used?

Regarding Claim 34; what is meant by "comprehensive"?

Regarding Claim 90; the sample is liquid because of the pneumatic focusing therefore, what is further liquefied?

Regarding Claim 91; the claim is not understood.

REJECTIONS OVER PRIOR ART UNDER 35 U.S.C. § 102:

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

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"A person shall be entitled to a patent unless --

the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States."

4. Claims 1-2, 8, 10-12, 18, 32, 35-36, 47, 50, 52, 72-74, 82 and 92 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Laugharn et al WO 99/22868, hereinafter Laugharn.

Regarding Claims 1-2, 8, 10, 11, 72-74 and 92; see P 5, Li 5-10, and P 9, Li 14-21.

Regarding Claim 12; see P 8, Li 15-16.

Regarding Claim 18; see P 9, Li 8-10 and 20-21.

Regarding Claims 32, 47, 50 and 52; see P 17, Li 5-22.

Regarding Claim 35-36; see P 16, Li 30 where a computer is inherently part of automation.

Regarding Claim 82; because Laugharn compresses the sample the process will inherently condense water vapor.

REJECTIONS OVER PRIOR ART UNDER 35 U.S.C. § 103:

5. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section

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102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."

6. Claims 21-23, 28-31, 33, 48-49, 69-71, 79-81, 83-84, 89, 94, 96-113 and are rejected under 35 U.S.C. § 103 as being unpatentable over Laugharn.

Regarding Claims 21-23; Laugharn fails to specify these steps. It would have been obvious to one of ordinary skill in the art at the time of the invention to heat or cool the column as is customarily done in temperature programming and to use various carrier gases for different effects.

Regarding Claim 28; it is obvious that Laugharn can be operated continuously or in batch mode.

Regarding Claim 29; averaging is notoriously old and well known in the art to more accurately smooth out random errors.

Regarding Claim 30; these signal processing techniques are notoriously old and well known in the art.

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Regarding Claim 31; Laugharn does not teach specific detectors. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ any of these detectors depending upon the sought separation.

Regarding Claim 33; it is obvious that because peaks are resolved in time and by weight that the analysis is 2-dimensional.

Regarding Claims 48-49, 94 and 96; see p 18, Li 5-22 wherein serial and/or parallel detectors are notoriously old and well known in the art.

Regarding Claim 69; Laugharn fails to teach pre-stored gaseous samples. The Examiner takes official notice that this is standard sample gathering from remote sites.

Regarding Claim 70; see P 8, Li 15-16 wherein it is obvious that using air necessarily includes air toxics.

Regarding Claim 71; Laugharn fails to do fence-line monitoring. It would have been obvious to one of ordinary skill in the art at the time of the invention

to perform fence-line monitoring for a site comprising a pollution source(s).

Regarding Claim 79-81; Laugharn fails to remove materials from the sample. It would have been obvious to one of ordinary skill in the art at the time of the invention to filter or freeze-out materials prior to introduction into a chromatograph to prevent contamination especially from water vapor.

Regarding Claims 97-104; Laugharn teaches capillary chromatography in which it is obvious to use packed columns as these are common in the art.

Regarding Claim 83-84 and 89; it is obvious to remove the water vapor and study the residue because water vapor is harmful to many instruments and only the residue is of interest.

Regarding Claims 105-107; see P 5, Li 5-10, and P 9, Li 14-21. Laugharn fails to teach applying his method to VOCs. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Laugharn's method to VOCs because the method is completely general and can be applied to almost any sample.

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Regarding Claim 108-109; Laugharn teaches capillary chromatography in which it is obvious to use packed columns with a FID detector as these are common in the art.

Regarding Claims 110-111; it is obvious to automate the analysis using a computer controller.

Regarding Claims 112-113; it would have been obvious to one of ordinary skill in the art at the time of the invention to use valves to control flow and to place the valves in the most appropriate locations.

7. Claims 76 and 78 are rejected under 35 U.S.C. § 103 as being unpatentable over Laugharn as applied to claim 1, above, in view of Bushman.

Regarding Claim 76 and 78; Laugharn fails to measure directional distributions. Bushman measures directional distributions at Col 4, Li 45-58. It would have been obvious to one of ordinary skill in the art at the time of the invention to measure directional distributions to locate the source.

8. Claim 77 is rejected under 35 U.S.C. § 103 as being unpatentable over Laugharn as applied to claim 1, above, in view of Shair.

Regarding Claim 77; Laugharn fails to use a Gaussian plume model. Shair teaches that such models are

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common, at Col 1, Li 23-39. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Gaussian plume models because Shair teaches they are useful to study dispersion.

DESCRIPTION OF UNAPPLIED ART:

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it teaches other aspects of the claimed invention.

INQUIRIES:

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jay L. Politzer whose telephone number is (703) 305-4930 and whose facsimile number is (703) 308-7382
11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached at (703) 305-4705.
12. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4900.

jlp 3/4/03

72P

HELEN KWOK
PRIMARY EXAMINER

